

IN THE CLAIMS

Please cancel claims 1-9, resulting in the following listing of the claims. This claim listing supersedes and replaces all prior claim listings.

1-9. (Canceled)

10. (Original) A communication method between tasks executed on an operating system, said method comprising:

a step for managing the security level of tasks themselves and mutual verification keys for mutual verification between tasks and said operating system, in a table format at said operating system side, wherein said security level has a first level which is secure and a second level which is not secure;

a step for reading and writing blocks of tasks of said first level and blocks of tasks of said second level separately into a secure memory block and a non-secure memory block, respectively;

a step for providing a first buffer on a first task of a task of said first level, and a second buffer on a second task of a task of said second level, and providing within said operating system memory area for storing data and memory area for storing management information;

a step for specifying at said first task an ID and an address appropriated at said first task side, judging at said operating system side which memory block to use based on the security level of said first task and the security level of a first function, and, in the event that the security level of said first task and the level for executing said first task are secure, management information is written to said security memory block and data is written as enciphered contents with the ID, address value of management information,

and address value of the data body, as a key; and

a step for specifying at said second task an ID the same as said second task and an address appropriated at said second task side, judging at said operating system side which secure memory block to use based on the security level of said second task and the security level of a second function, and, in the event that the security level of said second task and the level for executing said second level are secure, data addressed to said second task managed in said secure memory block is searched, and the contents of the buffer where said data exists is copied onto said second task having been deciphered with the ID, address value of management information, and address value of the data body, as a key.

11. (Original) A communication method according to Claim 10, wherein said task is any of a semaphore, event flag, or mailbox.

12. (Original) A communication method according to Claim 10, wherein said task is a semaphore, and said first task is returning of resources and said second task is standing by to capture resources.

13. (Original) A communication method according to Claim 10, wherein said task is an event flag, and said first task is setting an event flag and said second task is clearing an event flag.

14. (Original) A communication method according to Claim 10, wherein said task is a mailbox, and said first task is transmitting data and said second task is receiving data.

15. (Original) A communication method according to Claim 10, wherein said verification is performed by collating whether or not a key each task has is the same as the key managed at the operating system side.

16. (Original) A communication method according to Claim 10, wherein said method is carried out by memory managing means which performs reading and writing discriminatorily between said secure memory block and said non-secure memory block.

17. (Original) A communication method according to Claim 16, wherein said memory managing means comprise hardware capable of setting access permission for each block of said memory blocks according to security level.

18. (Original) A communication method according to Claim 16, wherein said memory managing means are not capable of reading from or writing to the memory block of a first level with regard to a first task or a second task in the second level.

19. (Original) A communication method according to Claim 16, wherein said operating system performs management of security levels for each task and management of said memory blocks via said memory managing means in a centralized manner.

20. (Original) A communication method according to claim 14, wherein said management information comprises mail size and a mail body pointer.